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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,039	02/05/2002	Ernest C. Chen	PD-201148	8307

20991 7590 08/26/2005

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PATENT DOCKET ADMINISTRATION RE/R11/A109
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EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,039	CHEN ET AL.	
	Examiner	Art Unit	
	Juan A. Torres	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,8,11-23,26 and 29-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,8,11-23,26,29-34,36,37 and 39* is/are rejected.

7)☒ Claim(s) *35 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings were received on 07/21/2005. These drawings are accepted by the Examiner.

Specification

The modifications to the specification were received on 07/21/2005. These modifications are accepted by the Examiner.

Claim Rejections - 35 USC § 102

In view of the amendment filed on 07/21/2005, the Examiner withdraws the 35 USC § 102 rejections to claims 1-30 of the previous Office Action.

Claim Rejections - 35 USC § 103

In view of the amendment filed on 07/21/2005, the Examiner withdraws the 35 USC § 103 rejections based on Arslan in view of Ishio to claims 1-30 of the previous Office Action.

Response to Arguments

Applicant's arguments filed on 07/21/2005 have been fully considered but they are not persuasive.

The Applicant contends, "Anderson discloses a single circuit that is capable of demodulating signals in either the HART (coherent) or ISII (non-coherent) protocols. It does not disclose or suggest the demodulation of a multi-layer modulation signal with non-coherently modulated layers. Further, if one of ordinary skill in the art were to want to modify the Ishio system to allow compatibility with other systems (the Office Action's

proffered motivation for modifying Ishio as described in Anderson), Anderson teaches that he/she would do so with a circuit that would operate with either one signal or the other, not by combining non-coherent layers.".

The Examiner disagrees and asserts, that the brief does not contain, for each rejection under 35 U.S.C. 103, an argument which specifies the errors in the rejection and, if appropriate, the specific limitations in the rejected claims which are not described in the prior art relied upon in the rejection, and an explanation how such limitations render the claimed subject matter unobvious over the prior art. If the rejection is based upon a combination of references, the argument must explain why the references, taken as a whole do not suggest the claimed subject matter, and shall include, as may be appropriate, an explanation of why features disclosed in one reference may not be properly combined with features disclosed in another reference. A general argument that all the limitations are not described in a single reference does not satisfy the requirements of 37 CFR 1.192(c)(8)(iv). If a single reference contains all the limitations of the claim, the rejection will be under 35 USC 102. The coherent and non-coherent of a signal is independent of the use of layered modulation. Ishio present a case of coherent signals for simplification, but the coherent of the signals is not important in his patent, in fact he only mention that one time. Ishio never discloses that his invention is not applicable to non-coherent signals. For these reasons and the reason indicated in the previous Office Action the rejections are maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "wherein the step of is performed by a logic circuit" is vague and indefinite because it is not clear what step is the logic circuit performing.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "wherein the step of comprises match filtering" is vague and indefinite because it is not clear what step is the match filtering performing.

Claim Rejections - 35 USC § 103

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio (US 4039961) and further in view of Anderson (US 6297691).

As per claims 1 and 19 Ishio discloses receiving a layered signal and producing a layered in-phase signal and a layered quadrature signal (figure 5 block 16-17 column 4 lines 3-52. Ishio uses a VCO operating as a turner. This component is also disclosed by Anderson in figure 4 block 54 using a digital NCO); an analog-to-digital converter for digitizing the layered in-phase signal and the layered quadrature signal (figure 5 block 16 column 4 line 7); a digital processor for processing the digitalized layered in-phase signal and the digitalized layered quadrature signal to produce a lower layer in-phase signal and a lower layer quadrature signal, an upper layer in-phase signal and an upper layer quadrature signal the processor comprising a subtractor configured to subtract an

ideal upper layer in-phase signal from the digitalized layered in-phase signal to produce the lower layer in-phase signal and to subtract an ideal upper layer quadrature signal from the digitalized layered quadrature signal to produce the lower layer quadrature signal (figure 5 outputs 19-20 and 27-28 column 4 lines 1-52); a digital-to-analog encoder for converting the lower layer in-phase signal and the lower layer quadrature signal to a lower layer in-phase analog signal and a lower layer quadrature analog signal (figure 5 block 18 column 4 lines 3-52); and a modulator for modulating the lower layer in-phase analog signal and the single layer quadrature analog signal to produce a lower layer signal (figure 5 block 21 column 4 line 18). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 1 and 19.

As per claims 2 and 20 Ishio and Anderson disclose claims 1 and 19. Ishio also discloses that the layered signal is compatible with a legacy receiver such that at least one signal layer is decodeable directly from the layered signal with the legacy receiver

(figure 5 block 19 and 20 column 4 lines 14-15). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 2 and 20.

As per claims 4 and 22 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor comprises a logic circuit (figure 7 block 36 column 5 line 12 to column 6 line 4). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 4 and 22.

As per claims 5 and 23 Ishio and Anderson disclose claims 1 and 23. Anderson also discloses that the processor comprises match filtering the digitalized in-phase signal and the digitalized quadrature signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 5 and 23.

As per claims 8 and 26 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that digitalized layered in-phase signal and the digitalized layered quadrature signal are delayed to synchronize the subtraction (figure 5 delay line 23 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 8 and 26.

As per claims 11 and 29 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor applies signal map to the ideal upper layer in-phase signal and the ideal upper layer quadrature signal, the signal map accounting for transmission distortions of the layered signal (figure 5 blocks 18-20 column 4 lines 2-52). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 11 and 29.

As per claims 12 and 30 Ishio and Anderson disclose claims 1 and 23. Ishio also discloses that the processor amplitude and phase matches the idea upper layer in-phase signal and the ideal upper layer quadrature signal with the digitalized layered in-phase signal and the digitalized upper layer quadrature signal (figure 5 blocks 18-20 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The

suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 12 and 30.

As per claim 13 Ishio discloses a digital processor for decoding a layered signal to produce a single layer signal, comprising a demodulator and decoder for decoding an upper layer signal from the layered signal (figure 5 block 16 column 4 lines 1-52); an encoder for generating an ideal upper layer signal from the decoded upper layer signal (figure 5 block 18 column 4 line 12); a signal processor for modifying the ideal upper layer signal to characterize transmission and processing effects (figure 5 block 21 column 4 lines 18); and a subtractor for subtracting the modified ideal upper layer signal from the layered signal to produce the single layer signal (figure 5 block 25 column 4 lines 42-52). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 13.

As per claim 14 Ishio and Anderson disclose claim 13. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered signal to synchronize amplitude and phase matching of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 14.

As per claim 15 Ishio and Anderson disclose claim 13. Ishio also discloses a delay function correlated to an output of the signal processor to appropriately delay the layered signal to synchronize subtraction of the modified ideal upper layer signal and the layered signal (figure 5 delay line 23 column 4 line 25). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it

would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 15.

As per claim 16 Ishio and Anderson disclose claim 13. Ishio also discloses that the signal processor applies a signal map to the ideal upper layer signal (figure 5 block 18-21 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 16

As per claim 17 Ishio and Anderson disclose claim 13 Anderson also discloses that the processor comprises match filtering the ideal upper layer signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 17.

As per claim 18 Ishio and Anderson disclose claim 13. Ishio also discloses that the signal processor amplitude and phase matches the ideal upper layer signal with the layered signal (figure 5 block 18 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 18.

As per claim 21 Ishio and Anderson disclose claim 19. Ishio also discloses that the single layer signal from the modulator is decodeable with a legacy receiver (figure 5 blocks 19 and 20 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 21.

As per claims 31 and 36 Ishio discloses receiving a non-coherent layered modulation signal comprised of a sum of a first layer signal and a second layer signal, comprising receiving the layered modulation signal and producing a layered in-phase signal and a layered quadrature signal (figure 5 block 16-17 column 4 lines 3-52. Ishio uses a VCO operating as a turner. This component is also disclosed by Anderson in figure 4 block 54 using a digital NCO); digitizing the layered in-phase signal and the layered quadrature signal (figure 5 block 16 column 4 lines 3-52, the detection circuit 16 will detect the signal that is a digital signal and will make a digital decision of the signal so it is digitalizing the received signal. As the title of the Ishio patent indicates the demodulator is for combined digital amplitude and phase keyed modulation signals. Anderson also discloses this element in figure 3 block 14); decoding the layered in-phase signal and the layered quadrature signal to produce a lower layer in-phase signal, a lower Layer quadrature signal, an upper layer in-phase signal and an upper layer quadrature signal, comprising modifying the upper layer in-phase signal and the upper layer quadrature signal to account for transmission distortions of the layered modulation signal to produce an ideal upper layer in-phase signal and an ideal upper layer quadrature signal (figure 5 block 21 column 4 lines 3-52); subtracting the ideal upper layer in-phase signal from the layered in-phase signal to produce the lower layer in-phase signal and subtracting the ideal upper layer quadrature signal from the layered quadrature signal to produce the lower layer quadrature signal; (figure 5 block 25 column 4 lines 3-52); converting the lower layer in-phase signal and the lower layer quadrature signal to a lower layer in-phase analog signal and a lower layer quadrature

analog signal (figure 5 blocks 18-20 column 4 lines 3-52); and modulating the lower layer in-phase analog signal and the lower layer quadrature analog signal to produce a single layer signal (figure 5 block 21 column 4 lines 3-52). Ishio doesn't disclose that the signal is a non-coherence signal. Anderson discloses de demodulation of non-coherent in-phase and quadrature signals modulated signals (figure 3 column 6 lines 11-45). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 31 and 36.

As per claim 32 Ishio and Anderson disclose claim 31. Anderson also discloses that the processor comprises match filtering the digitalized in-phase signal and the digitalized quadrature signal (figure 5 block 56 column 8 lines 17-31). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it

would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claim 32.

As per claims 33 and 39 Ishio and Anderson disclose claims 31 and 36. Ishio also discloses that the single layer signal from the modulator is decodeable with a legacy receiver (figure 5 blocks 19 and 20 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 33 and 39.

As per claims 34 and 37 Ishio and Anderson disclose claims 31 and 36. Ishio also discloses delaying the digitized layered in-phase signal and the digitized layered quadrature signal to synchronize the subtraction of the ideal upper layer in-phase signal from the layered in-phase signal and the subtraction of the ideal upper layer in-phase signal from the layered in-phase signal (figure 5 block 23 column 4 lines 1-52). Ishio and Anderson are analogous art because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the receiver disclosed by Ishio the reception of non-coherence signals as disclosed by Anderson. The suggestion/motivation for doing so would have been to

demodulate coherence and non-coherence signals reducing the cost of the decoder and to have compatibility with other systems (Anderson column 2 lines 46-61). Therefore, it would have been obvious to combine Ishio with Anderson to obtain the invention as specified in claims 34 and 37.

Allowable Subject Matter

Claims 35 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: claims 35 and 38 are allowed because the references cited fail to teach, as applicant has, applying a first delay to a the digitized layered in-phase signal and the digitized layered quadrature signal; generating amplitude and phase matching coefficients from the digitized and first delayed layered in-phase signal, the digitized and first delayed quadrature signal, the modified upper layer in-phase signal and the muddied upper layer quadrature signal; applying the amplitude and phase matching coefficients to the modified upper layer in-phase signal and the modified upper layer quadrature signal to generate the ideal upper layer in-phase signal and the ideal upper layer quadrature signal; and applying a second delay to the digitized and first delayed layered in-phase signal and the digitized and first delayed layered quadrature signal to produce the delayed digitized layered in-phase signal and the delayed digitized layered quadrature signal, as the applicant has claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres
08-10-2005

KEVIN BURD
PRIMARY EXAMINER